

## **AMENDMENTS TO THE CLAIMS**

This listing of claims replaces all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

Claims 1-6. (Cancelled).

Claim 7. (Currently Amended) A communication system comprising a first communication apparatus and a second communication apparatus, wherein

the first communication apparatus comprises:

means for generating a signal which has a frame comprising a plurality of slots and includes one or more known pilot symbols and one or more sync words for frame synchronization in each of the slots; and

means for transmitting the signal, and

the second communication apparatus comprises:

means for receiving the signal;

means for carrying out coherent detection by using the pilot symbols included in the signal; and

means for establishing frame synchronization by using the sync words included in the signal; and

wherein the means for carrying out coherent detection carries out coherent detection by also using the sync words after the frame synchronization is established

Claims 8-11. (Cancelled).

Claim 12. (Currently Amended) [The] A communication apparatus as claimed in claim 11, comprising:

means for receiving a signal which has a frame comprising a plurality of slots and includes one or more known pilot symbols and one or more sync words for frame synchronization in each of the slots;

means for carrying out coherent detection by using the pilot symbols included in the signal; and

means for establishing frame synchronization by using the sync words included in the signal.

wherein the means for carrying out coherent detection carries out coherent detection by also using the sync words after the frame synchronization is established.

Claim 13. (Currently Amended) A communication method at a communication system comprising a first communication apparatus and a second communication apparatus, comprising the steps of:

generating, at the first communication apparatus, a signal which has a frame comprising a plurality of slots and includes one or more known pilot symbols and one or more sync words for frame synchronization in each of the slots;

transmitting the signal at the first communication apparatus;

receiving the signal at the second communication apparatus;

carrying out, at the second communication apparatus, coherent detection by using the pilot symbols included in the signal; and

establishing, at the second communication apparatus, frame synchronization by using the sync words included in the signal,

wherein the step of carrying out coherent detection carries out coherent detection by also using the sync words after the frame synchronization is established.

Claim 14. (Cancelled).

Claim 15. (Currently Amended) A communication method comprising the steps of:  
receiving a signal which has a frame comprising a plurality of slots and includes one or more known pilot symbols and one or more sync words for frame synchronization in each of the slots;

carrying out coherent detection by using the pilot symbols included in the signal; and

establishing frame synchronization by using the sync words included in the signal,

wherein the step of carrying out coherent detection carries out coherent detection by also using the sync words after the frame synchronization is established.

Claim 16. (New) The communication system as claimed in claim 7, wherein the means for generating includes a pilot symbol portion and a sync word portion alternately at fixed intervals in each of the slots in the signal.

Claim 17. (New) The communication method as claimed in claim 13, wherein the step of generating includes a pilot symbol portion and a sync word portion alternately at fixed intervals in each of the slots in the signal.